

Remarks:

This amendment is submitted in an earnest effort to advance this case to issue without delay. The examiner has indicated that the case contains allowable subject matter.

The priority papers were filed with the original application papers and their receipt was acknowledged in the above-mentioned Examiner's Action. The undersigned hereby reiterates the priority claim made in the earlier-filed Declaration.

The specification has been amended to eliminate some minor obvious errors. No new matter whatsoever has been added. The numerous e's that disappeared mysteriously somewhere when the case was printed have been reinserted.

Claim 8, which depended via claim 7 on independent claim 1, has been amended to include the subject matter of claims 1 and 7, making it independent and allowable, along with claim 9 depending from claim 8.

As described in the instant application, the way a chuck actuator works is that an actuating stem is displaced axially to open and dechuck a tool. In the first part of the stem's axial movement, it acts on radially displaceable jaws that are shifted radially outward to disengage from the tool. Since, however, the

tool has typically been gripped with great force, it normally remains in position even though the jaws have been retracted. According to the instant invention, the tool is subsequently knocked out of the chuck by engagement of the stem of the piston against a rear end of the etool. Thus the instant invention is aimed at this knockout device, not with a simple system for opening and closing a chuck. The claim has been modified accordingly.

According to the instant invention as the chuck-actuating stem is moved forward, it is first displaced at a relatively fast speed, so as to retract the tool-holding jaws, and is then slowed down, so as to bump and eject the tool. Such operation is extremely advantageous in automated machines since it prevents the stem from striking the tool so hard that it is forcibly ejected from the chuck before the automatic unloader can actually grasp it.

In US patent 3,023,675 of Stephan relates to a very complex chuck actuator. The paragraph running from line 35 to line 60 of column 3 describes the movement of the actuating stem here, and there is no hint of two-speed movement. Admittedly, there are so many parts here that it might be possible to find equivalents to most of the structure defined in claim 1, but not to the function.


US patent 3,267,815 of Ortman describes a "cushioning" structure for varying piston movement, but the function is achieved by the simple expedient of providing a deformable part. According to the instant invention the effect is achieved hydraulically, a

system that can be counted on the have a superior service life, mainly because it is not subject to the abuse and wear of the physical cushion of Ortman.

Thus claim 1 clearly defines over the cited art and no rejection under §102 or §103 on this art is possible.

If only minor problems that could be corrected by means of a telephone conference stand in the way of allowance of this case, the examiner is invited to call the undersigned to make the necessary corrections.

Respectfully submitted,  
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Enclosure:                      Extension request